

FREY, L., prof.

The dollar in crisis. Vnesh. torg. 43 no.8:39-43 '63.  
(MIRA 16:8)

(United States--Balance of payments)

RASTORGUYEV, Viktor Sergeyevich; FREY, L.I., prof., otv. red.;  
KHMELININA, Ye., red.

[Finance and credit in the Democratic Republic of Vietnam]  
Finansy i kredit Demokraticheskoi Respubliki V'etnam. Mo-  
skva, Finansy, 1965. 134 p. (MIRA 18:9)

FREY, R.

3-111-12

Saving of fuel in the cement rotary furnace. R. Frey.  
Zement-Kalk-Gips, 4 [9] 230-30 (1951). A method is described  
for the calculation of the heat consumption of rotary tubular fur-  
naces which permits the determination of the waste gas tempera-  
ture and the losses through the walls. Numerical examples  
illustrate the method. 5 references. M. H. A.

FREY, Tamas

Mathematical Reviews  
Vol. 15 No. 2  
Feb. 1954  
Numerical and Graphical  
Methods

Frey, Tamás. Les principes de fonctionnement des diverses sortes de planimètres. (Les machines de l'Institut de Mathématique Appliquée.) Magyar Tud. Akad. Alkalm. Mat. Int. Közl. 1 (1951), 253-294 (1953). (Hungarian. Russian and French summaries)

L'article donne une description détaillée du principe de fonctionnement et de la construction des planimètres polaires, linéaires et radiaux, ainsi que des planimètres de Stieltjes. Il discute systématiquement et d'une manière détaillée la théorie des planimètres fonctionnels et intégrimètres fonctionnels convenables pour évaluer les intégrales ayant les formes

$$\int_0^1 f(y(x))dx \text{ et } \int_0^1 f(y(x))g(x)dx.$$

Résumé de l'auteur.

FREY, T.

"Calculating machines." p. 538. (Magyar Technika, Vol. 8, no. 9, Sept 53, Budapest)

SO: Monthly List of East European Accessions, Vol 3 No 2 Library of Congress Feb 54 Uncl

2. On the equidistant Lagrange interpolation. (In German)  
T. P. v. Periodica Polytechnica, Engineering. Vol. 1,  
1957, No. 3, pp. 237-251

Bernstein's famous example relative to the  $|x|$  function indicates that no localization theorem (in the Riemannian sense) can exist in the case of an equidistant Lagrange interpolation often employed as a method of approximation. However the paper proves that the procedure is primarily sensitive to the singularities located at the centre of the basic range of interpolation. This is by reason of the series of interpolations being convergent inside any  $a, b$  range located symmetrically in respect to the centre of the basic range of interpolation from which the interpolated function may be continued to cover the entire basic range in a way as to obtain a convergent equidistant series of interpolation of the latter function. A detailed analysis is presented of the conditions of convergence existing at the boundary points of the mentioned range, of its criteria of approximation and of the possibility of realizing the above-stated continuation.

FIKSI, T.

The localization of the best polynomial approximation. I.

p. 403 (Magyar Tudományos Akadémia. Matematikai és Fizikai Csatló. Közleményei.  
Vol. 7, no. 3/4 1957. Budapest, Hungary)

Monthly Index of East European Accessions (EEAI) 10. Vol. 7, no. 2,  
February 1958

Frey, Tamás. On the boundedness of orthogonal polynomials. Magyar Tud. Akad. Mat. Fiz. Oszt. Közl. 8 (1958), 67-87. (Hungarian)

Let  $\omega_n(x)$ ,  $\pi_n(x)$  be sets of orthogonal polynomials associated with weight-functions  $w(x)$ ,  $p(x)$  on  $[-1, 1]$ . The author finds conditions on  $w(x)$ ,  $p(x)$  which ensure that  $\omega_n(x)$ ,  $\pi_n(x)$  have a similar behaviour as  $n \rightarrow \infty$ , bounds being established of the form

$$|\omega_n(x)| \leq C \sum_{k=0}^n |\pi_{n-k}(x)|, \quad |\pi_n(x)| \leq C' \sum_{k=0}^n |\omega_{n-k}(x)|,$$

where  $s$ ,  $C$ ,  $C'$  are independent of  $n$ . In the result of Korovkin [see G. Szegő, Orthogonal polynomials, Amer. Math. Soc., New York, 1939; MR 1, 14; p. 157] we have  $s=1$  and  $w(x)/p(x)$ ,  $p(x)/w(x)$  are bounded and satisfy a Lipschitz condition. In the present extensions there may be a finite number of points at which these ratios do not satisfy the Lipschitz condition, and possibly become infinite. At such a point  $x_j$  there are required bounds of the form

$$p|x-x_j|^{a_j} \leq p(x) \leq P|x-x_j|^{a_j}, \\ w|x-x_j|^{b_j} \leq w(x) \leq W|x-x_j|^{b_j},$$

where  $w$ ,  $W$ ,  $p$ ,  $P$  are positive constants and  $-1 < a_j \leq A_j < a_j+1$ , modified to  $-1 < a_j \leq A_j < a_j+1$  if  $x_j = \pm 1$ , and

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1/2



Frey, Tamas

similarly for the  $b_j, B_j$ . The case of polynomials on the unit circle is also considered, and plays a part in the proof. Finally, the author proves results weakening the Lipschitz condition. For example, if  $k(x) = w(x)/p(x)$ , we might have

$$|k(x) - k(x_0)| \leq |x - x_0|^s \cdot g(|x - x_0|),$$

for  $x_0 - \lambda < x < x_0 + \lambda$ , where  $k(x_0) > 0$  and  $\int_0^1 t^{-1} g(t) dt < \infty$ .

F. V. Atkinson (Canberra)

FREY, T.

Interpolation on normal sets of points. I. Proof of a hypothesis of Erdos and Turan. p. 121

MAGYAR TUDOMANYOS AKADEMIA. MATEMATIKAI ES FIZIKAI OSZTALY. KOZLEMENYEI. Budapest, Hungary. Vol. 9, no. 2, 1959

Monthly list of East European Accessions (EEAI). IC. Vol. 9, no. 1, Jan., 1960

Uncl.

16(1)

AUTHOR:

Frey, T. (Budapest)

05352

SOV/39-49-2-1/5

TITLE:

On the Asymptotic Behavior of Orthogonal Polynomial Sequences

PERIODICAL: Matematicheskii sbornik, 1959, Vol 49, Nr 2, pp 133-180 (USSR)

ABSTRACT: Let  $\varphi(t) \in L_{2\pi}$  be a nonnegative function, where  $\log \varphi \in L_{2\pi}$ . The polynomial sequence  $\{\phi_n(z)\}$  which is orthogonally normed with the weight  $\varphi$  is assumed to possess an asymptotic representation in the point  $z_0 = e^{it_0}$ . Let  $\psi(t) \in L_{2\pi}$  satisfy only some quite general global structural requirements. Let  $\varphi(t)$  and  $\psi(t)$  have a contact of second order in the point  $t_0$  (if the sequence  $\{\sqrt{\varphi(t)}|\phi_n(e^{it})|\}$  is uniformly bounded in the neighborhood of  $t_0$ , then a contact of "a little higher" than first order is sufficient). Then the polynomial sequence  $\{\psi_n(z)\}$  which is orthogonally normed

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SOV/39-49-2-1/5

On the Asymptotic Behavior of Orthogonal Polynomial Sequences

with respect to the weight function  $\psi$  possesses an asymptotic representation in  $z_0$  too.

The proof is given in two steps. Firstly it is shown that the polynomial sequence orthogonally normed with the weight  $\varphi(t) \cdot \pi_m(t, k)$ , where  $\pi_m(t, k)$  is a trigonometric polynomial of order  $m$  approximating the function  $k(t) = \frac{\psi(t)}{\varphi(t)}$ , possesses an asymptotic representation in  $z_0$  too. Secondly the asymptotic representation of the sequence  $\{\psi_n(z_0)\}$  is given.

Some generalizations of the theorem of Korovkin [Ref 5] are obtained as additional result.

In the case  $\varphi \neq 1$  there follow results of Freud [Ref 4]. But also here a stronger statement is obtained:  $\{\psi_n(z)\}$

possesses an asymptotic representation in  $z_0$ , if  $\psi(t)$  has in  $t_0$  a contact with the order  $> \frac{1}{2}$  or with logarithmic order

with the constant  $\psi(t_0)$ . The author assumes that

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SOV/39-49-2-1/5

On the Asymptotic Behavior of Orthogonal Polynomial Sequences

$\{\sqrt{\psi} |\psi_n(e^{it})|\}$  is uniformly bounded in the neighborhood of  $t_0$ .

Altogether there are 10 theorems and 19 lemmata.

The author mentions Ya.L.Geronimus.

There are 8 references, 2 of which are Soviet, 3 Hungarian, 1 German, 1 Czech, and 1 Serbian.

SUBMITTED: November 16, 1957

Card 3/3

FREY, T. (Budapest)

Asymptotic investigation of a retarded integral equation system.  
Periodica polytechn chem 4 no.3:133-142 '60. (EBAI 10:5)

1. Lehrstuhl für Mathematik der Technischen Universität, Budapest.  
(Asymptotes) (Integral equations)

FREY, T.

On the field strength of a surface charge level. Periodica polytechn  
electr 4 no.4:327-342 '60. (EEAI 10:6)

1. Lehrstuhl für Mathematik und der Technischen Universität,  
Budapest.  
(Electric charge and distribution)

FREY, T.; ROZSA, P.

Convergency speed of the difference method of the Poisson and biharmonic differential equation. Periodica polytechnica 4 no.4: 385-422 '60.  
(EEAI 10:6)

1. Lehrstuhl für Mathematik der Technischen Universität, Budapest.  
(Differential equations)



BIHARI, Imre (Budapest); FREY, Tamas (Budapest); PETHO, Arpad (Budapest)

Data on a problem of gas dynamics; a characteristic peripheral value  
problem with discontinuities in the peripheral values. Mat kut kozl  
MTA 5 no.1/2:179-202 '60. (EEAI 10:1)

1. Technische Hochschule, Budapest (for Bihari, Frey). 2.  
Zentralforschungsinstitut fur Chemie, Budapest (for Petho)  
(Gases)

S/044/62/000/011/046/064  
A060/A000

AUTHOR: Frey, Tamás

TITLE: Estimation of errors in the solution of functional equations by a numerical method or a simulation method.

PERIODICAL: Referativnyy zhurnal, Matematika, no. 11, 1962, 36, abstract 11V158 (Tájékoztató. Magyar tud. akad. számítástechn. közp., 1961, no. 6, 27 - 34, 9, 15, 23, Hungarian; summaries in Russian, German and English)

TEXT: The author estimates the errors arising in the solution of functional equations by means of a certain class of algorithms. The problems are also considered of reducing the errors by means of a given algorithm and by other auxiliary algorithms.

[Abstracter's note: Complete translation]

Card 1/1

FREY, T. (Budapest)

Conditions of the convergence of interpolation sequences  
corresponding to normal sequences of basic points. Proof  
of Erdős-Turán assumption. Mat. sbor. 54 no.2:137-176 Je  
'61. (MIRA 14:8)  
(Sequences (Mathematics)) (Interpolation)

FREY, T.

Data on the construction of partial automatic devices. Acta  
mat Hung 15 no.3/4:375-381 '64.

Data on the construction of terminal automatic devices. Ibid.:  
383-398

J. Rechentechnisches Zentrum der Ungarischen Akademie der  
Wissenschaften, Budapest. Submitted October 10, 1963.

FREY, Tamas, a matematikai tudományok kandidátusa

"Cybernetics" by L.Tyeplov [Teplov, L.]. Reviewed by Tamas Frey.  
Magy tud 71 no.1:58 Ja '64.

1. Temporary Director, Computing Center, Hungarian Academy of  
Sciences, Budapest.

FREY, Tamas, a matematikai tudományok kandidátusa; KORNAI, Janos, a  
kozgazdasági tudományok kandidátusa, tudományos főmunkatárs

Application of mathematical methods in the field of economics  
with special regard to an industrial branch. Magyar Tud. 71  
no.8/9:498-511 Ag-S '64.

1. Computing Center, Hungarian Academy of Sciences, Budapest.
2. Acting Director, Computing Center, Hungarian Academy of  
Sciences, Budapest (for Frey).

FREY, T.; (Budapesht); OBADOVICH, Y.D. [Obadovics, J. Gy.] (Miskolc)

Some theoretical questions of the Eigenvalue problems related to the systems of differential equations. Acta mat Hung 15 no.1/2:1-28 '64

1. Vychislitel'nyy Tsentr Vengerskoy Akademii Nauk, Budapesht i Politekhmicheskii Institut tyazheloy promyshlennosti. Kafedra po matematike, Miskol'ts. Predstavleno L.Kalmarom.

FREY, Tibor

Development plans for the Danube harbor in Vienna.  
Kozleked kozl 20 no. 9: 138-140 1 Mr '64.



FREY, T.E.A.

Use of the correlation coefficient of interspecific relations. Bot.  
zhur. 48 no.2:235-239 F '63. (MIRA 16:4)

1. Institut zoologii i botaniki AN Estonskoy SSR, Tartu.  
(Phytosociology--Research)

ACC NR: AP5025599

AUTHOR: Nemchinskiy, A. L.; Frey, T. F.

UR/0129/65/000/010/0045/0046  
621.785.526

TITLE: Defects encountered on nitriding austenitic manganese and manganese aluminum steels

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1965, 45-46, and top half of insert facing p. 40

TOPIC TAGS: nitriding, austenitic steel, manganese steel, Hardness, brittleness

ABSTRACT: The nitriding of austenitic Mn and Mn-Al steels involves three types of defects, differing in their external appearance. The first type of defects is due to the crumbling of the grains of the nitrided layer (crumbling of individual grains, until complete disintegration). The second type of defects is the formation of cracks along grain boundaries in the nitrided layer, sometimes visible only on the micro-section. The defects of the third type consist in the "peeling" of the surface of the nitrided layer. To determine the causes of these defects, the authors investigated steels containing 17% Mn, 0.5% C, and 0, 1, and 3% Al. In addition, specimens with different sizes of the austenite grain were examined. Nitriding regime: heating to 640°C in ammonia current; 2) exposure to 640°C for 10 hr in the presence of 40-60% dissociation of ammonia; 3) heating to 680°C for 20 hr (85-95% dissociation

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ACC NR: AP5025599

of ammonia); 4) cooling to 620°C for 10 hr in absence of ammonia; 5) cooling at the rate of 30°C/hr in absence of ammonia. The case depth was determined by microstructural examination, and hardness and brittleness -- according to the imprints of the Vickers-device pyramid under loads of 5 and 30 kg. Findings: coarse-grained structure of the nitrided layer of austenitic Mn-Al steel causes crumbling; hence, a fine-grained structure is desirable and so the regimes of hot and cold working should be correspondingly adjusted. As for the second type of defects (cracks along grain boundaries), this can be prevented by making the system more airtight during cooling. As for the third type of defects -- peeling -- this can be prevented by barring the access of ammonia during the post-nitriding cooling. Orig. art. has: 1 table.

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: 002

ENCL: 00

OTHER: 000

SUB CODE: MM

Card 2/2

FREY, U.

Geographische Veränderungen im Moskauer Becken /Geographical changes in the Moscow basin<sup>7</sup>.  
(Petermanns geographische Mitteilungen, 1937, v. 83, p. 280-281).

The Moscow port after the construction of the Moscow-Volga Canal.      DLC: G1.P44

SO: Soviet Transportation and Communication, A Bibliography, Library of Congress,  
Reference Department, Washington, 1952, Unclassified.

FREY, V.; VELITSKI, B. [Velicki, B.]

Comments on V.E.Khartsiev's article "Symmetry of the energy zones of CdSb and ZnSb type compounds. Fiz. tver. tela 5 no.3:962-963 Mr '63.  
(MIRA 16:4)

1. Institut fiziki tverdogo tela Chekhoslovatskoy Akademii nauk,  
Praga.

(Crystallography)

Frei, V I

BARDIN, I.P., akademik, otv.red.; STRUMILIN, S.G., akademik, red.; SHEVYAKOV, L.D., akademik, red.; SHCHERBAKOV, D.I., akademik, red.; ANTIPOV, M.I., red.; BELYANCHIKOV, K.P., red.; BRODSKIY, V.B., red.; YEROFEEV, B.N., red.; LIBERMAN, A.Ya., red.; MELESHKIN, S.M., red.; ORLOV, I.V., red.; SMIRNOV-VERIN, S.S., red.; RIKMAN, V.V., red.; SAMARIN, A.M., red.; SLEDZYUK, P.Ye., red.; SKOBNIKOV, M.L., red.; SOKOLOV, G.A., red.; Frei, V.I., red.; KHLEBNIKOV, V.B., red.; SHAPIRO, I.S., red.; SHIRYAYEV, P.A., red.; KUDASHEV, A.I., red.isd-va; KUZ'MIN, I.F., tekhn.red.

[Magnetite ores of the Kustanay Province and their exploitation]  
Magnetitovye rudy Kustanaiskoi oblasti i puti ikh ispol'zovaniia.  
Otvetsvennyi red. I.P. Bardin. Moskva, Izd-vo Akad. nauk SSSR, 1958. 489 p. (Zhelezorudnye mestorozhdeniia SSSR). (MIRA 12:2)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany nedr.  
(Kustanay Province--Magnetite)

AUTHOR: Frey, V.I., Engineer 127-58-7-19/20

TITLE: The Iron Ore Base of Ferrous Metallurgy in the USSR (Zhelezo-  
rudnaya baza chernoy metallurgii SSSR). Edition of AS USSR,  
Moscow, 1957. 565 pages, 111 drawings. Circulation 4,000  
copies. Price 32 r. 40 k. (Izdatel'stvo AN SSSR, Moskva,  
1957, 565 stranits, 111 ris. Tirazh 4000. Tsena 32 r. 40 k.)

PERIODICAL: Gornyy zhurnal, 1958, Nr 7, pp 77-78 (USSR)

ABSTRACT: This is a review of the above-mentioned book written by a col-  
lective of scientific workers (editor-in-chief T.P. Bardin).

Card 1/1 1. Books-Review

1. GIPROBODA.

FREY, V.I.; YEFIMOV, M.V.; FEYGIN, L.M.; MININA, K.G.; MALYSHEV, I.I.,  
retsenzent; SKOBNIKOV, M.L., retsenzent; BRAUN, G.A., retsenzent;  
BRAUN, G.A., retsenzent; KHRUSHCHOV, N.A., retsenzent; GRISHINA, T.B.,  
red..izd-va; IYERUSALIMSKAYA, Ye., tekhn. red.

[Comparative evaluation of iron-ore deposits based on the results of  
a preliminary prospecting] Sravnitel'naia otsenka zhelezorudnykh  
mestorozhdenii po rezul'tatam predvaritel'noi razvedki. Moskva, Gos.  
nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1961. 153 p.  
(MIRA 14:11)

(Iron ores)

FREY, V.I., inzh.-geolog

"Iron-ore base of ferrous metallurgy of the U.S.S.R." by G.A.Braun.  
Gor. zhur. no.9:77-78 S '61. (MIRA 16:7)

1. Gosudarstvennyy institut po proyektirovaniyu gornykh predpriyatiy  
zhelezorudnoy i margantsevoy promyshlennosti i promyshlennosti  
nemetallicheskikh iskopayemykh.

(Iron ores)



HUNGARY

FREY, Zsuzsa, Dr, HALMY, Laszlo, Dr; Institute of Postgraduate Medical Education, Department of Neurology (chairman: MISKOLCZY, Dezso, Dr, professor) and IV. Department of Medicine (chairman: MOSONYI, Laszlo, Dr, professor) (Orvostovábbképző Intézet, Ideggyógyászati Tanszék és IV. sz. Belgyógyászati Tanszék), Budapest.

"Effect of Metopiron on Cerebral Electric Activity."

Budapest, Ideggyógyászati Szemle, Vol XX, No 1, Jan 67, pages 26-29.

Abstract: [Authors' Hungarian summary] The effect of metopiron on cerebral electric activity was studied in patients with different endocrinological disorders. Of the 13 cases studied, a normalization of the electrogenesis was observed in 3. It is assumed that the normalization is caused by a direct or indirect effect of metopiron on the hypothalamus. In their further reasoning, the possibility of a relationship between the diurnal variations of ACTH synthesis and the chronometric function of the  $\alpha$  rhythm is pointed out by the authors. 2 Hungarian, 19 Western references.

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ERY-BIELECKI, J.

Let us treat aviation seriously.

P. 3 (SKrzydlata Polska. Vol. (13) no. 36-37, Sept. 1957, Warszawa, Poland)

Monthly Index of East European Accessions (FTAI) LC. Vol. 7, no. 2,  
February 1958

FRYBERG, E.R.

FRYBERG, E.R. inshener.

On F.I. Khamedov's article "Protection of electric motors against two-phase operation" ("Energetik," no.8, 1956). Energetik 5 no.5: 25 My '57. (MLBA 10:6)

(Electric motors)

Y  
FREYBERG, G.

Predvaritel'nye kontrol'nye tsifry gruzooborota transporta v 1930/31 g.  
[Preliminary control figures of freight turnover in 1930/31] (Transport i khoz-  
vo, 1930, no. 6-7, p. 3-10).

DLC: HE7.T68

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress  
Reference Department, Washington, 1952, Unclassified.

FREYBERG, G. [Freibergs, G.]

A new book about the history of Latvian cities; a review. In  
Russian. Vestis Latv ak no.5:197-202 '60. (EKAI 10:7)  
(Latvia--History)

14-57-6-12291

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6,  
p 83 (USSR)

AUTHOR: Freyberg, I. A.

TITLE: Willows Used to Prevent Shoaling of Rivers (Ivy kak  
sredstvo bor'by s obmeleniyem rek)

PERIODICAL: Sb. nauch. rabot. po les. kh-vu. in-t lesa AN BSSR,  
Nr 6, pp 178-183

ABSTRACT: The author presents data from the study of two types  
of willows. These are: Salix dasyclados coarse-root  
willow and Salix acutifolia with pointed leaves. The  
ability of the former to shift its root system to the  
higher level after the deposition of sediments is help-  
ful in stabilizing the sand. The second type has  
developed a wide surface root system spreading far  
to the side; when bushes of this type with their numer-  
ous shoots are present on a river bank, they prevent  
its disintegration during spring floods. To improve

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14-57-6-12291

Willows Used to Prevent (Cont.)

navigation, the author recommends planting protective stands of coarse-root, tristem, hemp, white and sharp-leaf willow along river channels (by making use of cuttings and twigs).

G. M.

Card 2/2

Country : USSR

K

Category: Forestry. Forest Cultures.

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620016-8

Abs Jour: Rzhbiol., No 11, 1958, No 40614

Author : Freyberg, I.A.

Inst :                     

Title : Afforestation and the Anchoring of Ravines (in Belorussia).

Orig Pub: Sel'sk. gospodarka Belarusi. 1957, No 7, 42.

Abstract: No abstract.

Card : 1/1

FREYBERG, I.A.

K-3

USSR Forestry - Dendrology.

Abs Jour : Ref Zhur - Biol., No 2, 1958, 5866

Author : Freyberg, I.A.

Inst : Institute of the Forest Academy of Sciences BSSR

Title : Root Systems of Several Forest-Undergrowth Species and Their Ameliorative Properties.

Orig Pub : Sb. nauchn. rabot po lesn. kh-vu. In-t lesa Akad Nauk BSSR, 1956, No 7, 214-223

Abstract : Here are given some materials (with schematic diagrams) on the digging up of the root systems of several forest plants; the project was undertaken on the right bank of the Volga on the territory of the Tatarskaya ASSR and of Ul'yanskaya oblast'. It has been established that the British (chereshchatyy) oak, the common elm, and the balsam poplar develop deep and powerful root systems.

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FREYBERG, I.A.

USSR/Forestry - Forest Cultures.

K.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15418

Author : V.V. Ogiyevskiy, I.A. Freyberg

Inst : -

Title : The Effect of Woody Vegetation on the Reservoir Shore Creep.  
(Vliyaniye drevesnoy rastitel'nosti na opolznevyye yaleniya beregov vodokhranilishch).

Orig Pub : Tr. Leningr. lesotekhn. akad., 1957, vyp. 81, ch. 2, 101-105.

Abstract : The experimental results are presented which were gotten by the Leningrad Technological Forestry Academy and Agri-



USSR/Forestry - Forest Cultures.

K.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15418

adequate forestation at the waterhead, the creep phenomena on the shore banks are absent. When narrow belts are present (20-50 m) above the edge of the shore banks, the creep is not halted. On shore banks built of Permian and upper and lower Cretaceous deposits and covered with forests having a canopy completeness of higher than 0.5 with thick underbrush, the creep was absent. With scanty or no underbrush the creep phenomena is merely reduced. When there is a bottomland belonging to the shore banks which forms a counterforce, the creep phenomena is absent even with scantier tree stand and underwood. Some light is thrown on the effect of variously composed woods on land creep.

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FREYBERG, I.A.

Effectiveness of pine culture in connection with forest growing  
conditions of the trans-Ural forest-steppe region. Trudy Inst.  
biol. UFAN SSSR no. 25:97-103 '61. (MIRA 15:6)  
(Ural Mountain region--Pine)

FREYBERG, I.A.

Effect of the nature of soil conditions on the growth of pines  
in forest plantations of the trans-Ural forest-steppe. Trudy  
Inst. biol. UFAN SSSR no. 43:215-218 '65 (MIRA 19:1)

1. Ural'skaya lesnaya opytnaya stantsiya.

L 27414-65 FSS-2/FSF(h)/EWG(j)/EEO-2/EWT(1)/EWG(r)/FS(v)-3/EEC(k)-2/EWA(d)/  
EWG(v)/EWG(a)/EWG(c) Po-4/Pac-4/Pq-4/Pe-5/Pae-2/Pl-4 TT/DD/ED/GW

ACCESSION NR: AP5005443

S/0293/65/003/001/0142/0158

AUTHOR: Mantsvetova, A. I.; Neumyvakin, I. P.; Orlova, V. F.; Trubnikova, V. A.;  
Freydberg, I. M.

TITLE: Investigation of motor coordination in writing under space-flight conditions

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 1, 1965, 142-158

TOPIC TAGS: manned space flight, weightlessness, motor coordination, handwriting,  
zero G effect

ABSTRACT: Handwriting analyses of the log books kept during Vostok-series space flights by A. G. Nikolayev, P. R. Popovich, V. F. Bykovskiy, and V. V. Nikolayeva-Tereshkova were made for the purpose of determining how space-flight factors affected motor coordination. Alterations in motor coordination as expressed in handwriting were found to occur in all phases of the flights. The changes observed for the most part reflect unusual superficial writing conditions; there was little data indicating that disruption of central nervous system functions contributed to changes in writing. The greatest deterioration of writing coordination occurred during the first stages of flight. These changes were followed by adaptation and gradual improvement of coordination, which, however, did not return to normal.

Card 1/2

L 27411-65

ACCESSION NR: AP5005443

Thereafter handwriting either remained stabilized until the end of the flight, or deteriorated again during the final stages of the flight. Even under normal (non-flight) conditions, it was possible to distinguish periods of greater or less stability and better or worse motor coordination in each of the cosmonauts studied. These fluctuations in the level of motor coordination varied in their timing and stability from cosmonaut to cosmonaut. The nature of handwriting changes during weightlessness suggests that they are due to changes caused by zero gravity in the force component of writing movements and disruption of normal interaction between the central and peripheral components of the motor analyzer. This disruption is compensated by the establishment of a conditioned countering force component in writing motions. Orig. art. has: 12 figures. [CD]

ASSOCIATION: none

SUBMITTED: 09Apr64

ENCL: 00

SUB CODE: PH,LS

NO REF SOV: 013

OTHER: 002

ATD PRESS: 3192

Card 2/2

ALTUKHOV, G.V. (Moskva); MANTSVETOVA, A.I. (Moskva); NEUMYVAKIN, I.P.  
(Moskva); ORLOVA, V.F. (Moskva); TRUBNIKOVA, V.A. (Moskva);  
FREYDBERG, I.M. (Moskva)

Study of handwriting under conditions of space flight. Zhur.  
vys. nerv. deiat. 15 no.5:863-868 S-0 '65.

(MIRA 18:11)

L 10861-66 FSS-2/EWT(1)/FS(v)-3/EEC(k)-2/EWA(d) TI/DD/RD/GW  
 ACC NR: AP5025768 SOURCE CODE: UR/0247/65/015/005/0863/0868

AUTHOR: Altukhov, G. V. (Moscow); Mantsvetova, A. I. (Moscow); Neumyvakin, I. P. (Moscow); Orlova, V. F. (Moscow); Trubnikova, V. A. (Moscow); Freydberg, I. M. (Moscow) 45  
 CB

ORG: none

TITLE: Study of handwriting in space-flight conditions

SOURCE: Zhurnal vysshey nervnoy deyatel'nosti, v. 15, no. 5, 1965, 863-868

TOPIC TAGS: bioastronautics, space physiology, weightlessness, coordination, handwriting

ABSTRACT: The handwritten flight logs of cosmonauts A. G. Nikolayev and P. R. Popovich were used to study their general coordination in space flight. The test material consisted of 132 entries for Nikolayev and 75 for Popovich. Data shows handwriting changes of a functional, reversible character during the entire course of the 4-day space flight. A detailed record of the cosmonauts' handwriting characteristics under normal conditions was available for comparison. For both subjects the greatest decrease in writing coordination was observed in the first 40-50 min of the flight. The cosmonauts wrote most clearly after sleep. Popovich's writing while in space was more coordinated, presumably because his normal handwriting is variable and adaptable. Nikolayev's handwriting, however, is usually uniform and characterized by considerable

Card 1/2

UDC: 612.825.58+612.885.+612.821.35

L 10861-66

ACC NR: AP5025768

complexity of movement. In space flight it was most disrupted during or after working or in the presence of noise or disturbance. The obvious reason for these changes in coordination is weightlessness, which affects the working relationship between various parts of the motor analyzer by creating unusual afferent impulses. Some adaptation to space flight is evident in the improvement of writing ability in both cosmonauts after a period in weightlessness. Both cosmonauts tended to simplify their writing movements and to press the pencil harder on the paper. Their letters were also more connected during weightlessness. Orig. art. has: 3 figures. [JS]

SUB CODE: 06/ SUBM DATE: 24Jun64/ ORIG REF: 005

80  
Cord 2/2



FREYBERG, L.

36790. FREYBERG, L. Razvitiye ovtsevodstva na territorii latviyskogo goslemrassadnika. izvestiya akad. nauk latv. sssr, 1949, No 10, c. 15 - 39. - na latysh. yaz. - rezyume na rus. yaz. - bibliogr: 14 nazv.

SO: Letopis' Zhurnal' nykh Statey, Vol. 50, Moskva, 1949

S/020/60/134/006/017/031  
B016/B067

AUTHORS: Kazanskiy, B. A., Academician, Rozengart, M. I., and  
Freyberg, L. A.

TITLE: Effect of Potash and Phosphoric Acid Additions on the  
Aromatizing Activity of Chromium Oxide

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 6,  
pp. 1360-1362


TEXT: The aromatizing activity of the Al-Cr catalyst in the reactions  
of dehydrocyclization of n-heptane<sup>1</sup> and the dehydrogenation of cyclo-  
hexane<sup>1</sup> is favored by the alkali and alkaline-earth elements (Ref. 1).  
The authors wanted to study the effect of additions on the catalytic  
activity of pure chromium oxide in the conversion reactions of hydro-  
carbons, since in the Al-Cr catalyst chromium is the effective agent.  
The experiments which were conducted at 450°C and a volume rate of 0.8 h<sup>-1</sup>  
proved that an addition of 0.25 wt% of K<sub>2</sub>O in the form of potash com-  
pletely inhibits the reactions of dehydrocyclization of n-heptane.

Card 1/3

Effect of Potash and Phosphoric Acid  
Additions on the Aromatizing Activity of  
Chromium Oxide

S/020/60/134/006/017/031  
B016/B067

Furthermore, the formation of unsaturated compounds is reduced to 1/7, and the cracking and isomerizing secondary effect of the catalyst is almost completely eliminated. This addition produced the same effect on the dehydrogenation of cyclohexane to benzene. However, toluene was formed from an n-heptane + n-heptene-1-mixture if potash was added to the catalyst. The yield of toluene in this case was by 60% lower than that without addition of potash. The authors wanted to clarify whether the inhibiting effect of potash is a specific result of its alkaline nature. For this purpose they studied the effect of additions of 0.14 wt% of phosphoric acid on chromium oxide. The effect was the same as that of potash. Additions of both types also reduced the hydrogenating effect of the catalyst. These experiments show that the promoting effect of potassium on the Al-Cr catalyst is not due to the interaction of the alkaline addition with chromium oxide. This effect has a more complicated nature and apparently is the consequence of the interaction of all three components: of chromium oxide, of aluminum oxide, and of the alkaline addition. One of the forms of this interaction was described earlier (Ref. 2). The fact that the aromatization of heptane and cyclohexane



Card 2/3

Effect of Potash and Phosphoric Acid  
Additions on the Aromatizing Activity of  
Chromium Oxide

S/020/60/134/006/017/031  
B016/B067

ceases after the introduction of  $K_2CO_3$  or  $H_3PO_4$  on pure chromium oxide, whereas the aromatization of heptane continues, can be explained by the fact that the two additions influence the first stage of catalysis, i.e., activated adsorption. The authors assume that these additions prevent the adsorption of the saturated hydrocarbons at the active centers of the Cr catalyst. The adsorption of the much more active olefin molecules is inhibited much less. To explain the details of this phenomenon, further studies are necessary. The authors mention papers by A. M. Rubinshteyn, N. A. Pribytkova, and A. A. Slinkin (Ref. 2). Table 1 gives the results of the above aromatization experiments. There are 1 table and 2 Soviet references. ✓

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo  
Akademii nauk SSSR (Institute of Organic Chemistry imeni  
N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: July 15, 1960

Card 3/3

KAZANSKIY, B.A., akademik; ROZENGART, M.I.; FREYBERG, L.A.

Effect of potassium carbonate and phosphoric acid on the aromatizing  
action of chromium oxide. Dokl. AN SSSR 134 no.6:1360-1362 O '60.  
(MIRA 13:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk  
SSSR.

(Aromatization)

(Potassium oxide)

(Chromium oxide)

L 60226-65 EWT(1)/T/EWA(h) Pz-6/Peb IJP(c) AT  
ACCESSION NR: AT5013578 UR/2584/64/000/017/0151/0190

AUTHOR: Puritis, T. Ya. (Candidate of technical sciences); Ozolina, I. E.  
Krike, R. Ya.; Freyberg, L. A.

TITLE: Microplasma phenomena in a silicon p-n junction

SOURCE: AN LatSSR. Institut energetiki. Trudy, no. 17, 1964. Poluprovodniki i ikh primeneniye v elektrotekhnike, 3. Upravlyayemyye poluprovodnikovyye vypryamitel'nyye elementy i ikh primeneniye (Semiconductors and their use in electrical engineering, 3. Controlled semiconductor rectifying elements and their use), 151-190

TOPIC TAGS: microplasma, pn junction, silicon junction

ABSTRACT: The first part of the article presents an analysis of the results of published (mostly USA) theoretical and experimental investigations which dealt with the microplasma phenomena: visible light emission; avalanche-current

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L 60226-65

ACCESSION NR: AT5013578

fluctuation; p-n-junction model explaining the microplasma phenomena; microplasma instability and its probabilistic characteristics; equivalent circuit of the p-n junction with microplasma; effect of temperature on microplasma parameters; p-n-junction characteristics dependent on the microplasma instability; hot-electron emission by microplasma; thermal effect of microplasma; microplasma location and the role of dislocations; macroplasma; breakdown points, their classification and characteristics. The second part of the article reports the results of an experimental investigation conducted in the

Institute of Power Engineering, AN Latvian SSR. The connection between the appearance of light-emitting points, the current fluctuations, and the current-voltage characteristic was investigated. The A. G. Chynoweth and K. G. McKay circuit (J. Appl. Phys., 30, 1959, 11, 1811-1813) was used in the experiments; n-Si boron-diffusion p-n junctions (resistivity, 0.3 ohm-cm) were tested. These findings are reported: (1) Each current jump in the current-voltage characteristic is accompanied by a light-emitting point in the p-n junction; however, some points do not cause the current jumps in the characteristic; (2) Jumps have been

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L 60226-65

ACCESSION NR: AT5013578

observed which disappear as the voltage (and the microplasma temperature) rises; the corresponding light-emitting point becomes brighter as the voltage rises; (3) Occurrence of local breakdown points, at a reverse voltage much lower than the breakdown voltage, is one of the principal causes of the large reverse current; (4) The breakdown voltage of individual microplasmas increases with temperature within 20—70C; the thermal coefficient of the breakdown voltage increases with the latter; this is in agreement with the avalanche-breakdown theory; (5) The method of current-voltage characteristic investigation by simultaneous application of d-c and saw-tooth voltages can be recommended for quality control of Si devices at manufacturing plants. Orig. art. has: 24 figures, 15 formulas, and 1 table.

ASSOCIATION: Institut energetiki AN Latvyskoy SSR (Institute of Power Engineering, AN Latvian SSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: EC

NO REF SOV: 006

OTHER: 037

Card 3/3



RUSTAMOV. A.K.; KAPAYEV. M.; SOFYEV. O.; FREYBERG I.R.

Starling *Sturnus vagodarum*. a new bird species of the U.S.S.R.  
Zool. zhur. 44 no.6:940-941 '65. (MIRA 18:10)

1. Kafedra zoologii Turkmenskogo sel'skokhozyaystvennogo instituta,  
Ashkhabad.

FREYBERG, M.

Our "professor." Izobr. i rats. no.3:45 Mr '61.

(MIRA 14:3)

1. Samestitel' nachal'nika tsekha No.3 Pervoural'skogo  
novotrubnogo zavoda.

(Pervoural'sk—Pipe mills—Technological innovations)

FREYBERG, M. A.

Application of phosphatizing for cold drawing of tubing.  
M. A. Freyberg. *Metallurg*, 1956, No. 6, 31-4. Phos-  
phatizing of tubing consist of pickling bundles of tubing in  
 $H_2SO_4$  soln., washing in cold running water, and dipping in  
an alk. bath of 0.5%  $Na_2CO_3$  and  $NaNO_3$  for 1 min., then  
into a phosphatizing bath contg.  $ZnO$  15,  $H_3PO_4$  8, and  
 $HNO_3$  18 g./l. for 7-10 min. at 65-70°. The bundle is again  
dipped in the alk. bath then transferred to drier. Dried  
tubing is loaded into a soap bath contg. 2-5% domestic  
soap at 45-60° for 5-10 min. A Zn soap film of 5-8  $\mu$  is  
formed which serves to lubricate the tubing during drawing  
operation. Tubing 30 X 1 mm. prepd. from coppered  
blanks required 5 passes with 21% deformation per pass and  
42 hrs. Phosphatized tubing required 4 passes with 38%  
deformation per pass and 20 hrs. The quality of surface is  
improved and durability of drawing machine increased as the  
soap film does not break. V. N. Bednarski

df ysp LFH

~~FREYBERG, M. A.~~  
FREYBERG, M. A.

18  
Short Mandrels for the Cold Drawing of Tubes with Large Deformations. M. A. Freyberg. (Sov. 1950, (4), 364-385). [In Russian]. The use of short mandrels of VK-15 alloy for the cold drawing of tubes with deformations up to 41-2% with wall thickness up to 2.5 mm is described. Best mandrel types for tubes of different diameters are discussed.—S. Z.

WY

PRO OK

AUTHOR: Freyberg, M.A., Deputy Manager of the Drawing Shop of the<sup>222</sup>  
Pervoural'sk New Tube Works.

TITLE: Drawing tubes of variable diameter. (Volochenie trub  
peremennogo diametra.)

PERIODICAL: "Metallurg" (Metallurgist),  
1957, No. 2, pp. 18 - 20, (U.S.S.R.)

ABSTRACT: When tubes of variable diameter are to be drawn only  
part of the tube is subjected to the process. This is secured  
by a special arrangement which limits the movement of the  
carriage; thus the drawing can be stopped without stopping  
the mill. The drawing of a variable-diameter tubes is  
carried out on a 30-ton drawing mill with a speed of 15 m  
per minute. As an example of the process, the production of  
trolley bars for trolley buses is described in some detail.  
The blank for this consists of a hot-rolled 57 x 3.5 x 4 800 mm  
tube of type 30 KhGSA steel. For driving in the heads, the  
tubes are heated to 780-850 °C, great care being taken to  
keep within this range. This is followed by annealing at  
680-700 °C with a soaking time of 1 hr 20 minutes and cooling  
in air. Drawing is effected in four stages, the last three  
being by pressure. Annealing is carried out after each stage  
at a somewhat lower (780-800 °C) temperature and shorter  
soaking time (15 minutes) than before the first stage. In the  
later stages heat treatment is restricted to the work-hardened  
portions of the tube. The finished tubes are subjected to

Drawing tubes of variable diameter. (Cont.)

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the following heat treatments: tempering at 400-500 °C and normalisation at 850-860 °C (heating 30 min., soaking 15 min., air cooling). The tubes are straightened in two stages, the ends are cut off and samples are taken for mechanical testing.

There are 3 figures.

SOV/137-58-10-20927

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 79 (USSR)

AUTHORS Freyberg, M.A., Moskalenko, V.I.

TITLE Pull in the Cold Drawing of Zinc Phosphate-coated Tubes  
(Tyagovyye usiliya pri kholodnom volochenii trub s tsink-fosfatnym pokrytiyem)

PERIODICAL: V sb.: Prokatn. i trubn. proiz-vo. Moscow, Metallurgizdat, 1958, pp 370-377

ABSTRACT: When zinc phosphate coating (ZPC) is used as a method of preparing tubing (T) for drawing (D), the pull diminishes, and this makes it possible to increase deformation in a single pass. The antifriction properties of ZPC are considerably better than those of copper-plated surfaces. In order to determine the coefficient of friction with ZPC of outer and inner surfaces of T, measurement of actual pull in TD was made at the Novotrubnyy (New Pipe) Plant by means of a short mandrel of Nr 20 and 30KhGSA steel. The actual pull is 38% less than calculated. This is explained by reduction in the friction between the contact surfaces of the T and the tool. Experiments show that the coefficient of friction in drawing Nr-20 steel T with ZPC is

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Pull in the Cold Drawing of Zinc Phosphate-coated Tubes

0.08-0.10, and not 0.15 as in the drawing of T with copper surfaces. A check on the calculated pulls with allowance for the reduced coefficient of friction (0.1) makes it possible to introduce greater severity in the groovings for TD and to eliminate one or two passes.

B.Ts.

1. Pipes--Processing    2. Zinc phosphate--Coatings    3. Friction--Reduction

Card 2/2



S/130/60/000/006/010/011

AUTHORS: Freyberg, M. A., Assistant Manager, Moskalenko, V. I., Head of the Technological Department

TITLE: Cold Drawing of Pipes<sup>✓</sup> on an Oxide Film<sup>✓</sup>

PERIODICAL: Metallurg, 1960<sup>5</sup>, No. 6, pp. 32-33

TEXT: To reduce friction forces arising during the cold drawing of pipes they were subjected to parkerizing or coppering and greasing prior to drawing. These processes were carried out at the etching department. The technology of parkerizing and coppering is described. To increase the efficiency of the etching department at the Pervoural'skiy novotrubnyy zavod (Pervoural'skiy New Pipe Plant) workers of the Plant developed a new technology of preparing mandrel-less pipes for drawing by eliminating the parkerizing and coppering process. Coppering and hot water washing were replaced by prolonged washing of the pipes with a firepump jet. During washing with the cold water jet and subsequent holding during 7-10 minutes in the open air an oxide film was formed on the pipes. This film was subjected to saponification in a saponifying emulsion bath and then formed a satisfactory antifriction coating, preferable to a parkerized or coppered one. This oxide film may easily form on pipes of all

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Cold Drawing of Pipes on an Oxide Film

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carbon and alloyed steels, including 12XMP (12KhMP), 15M (15M), 15XM (15KhM), 12MX (12MKh), 15X (15Kh), 40X (40Kh), 30XCA (30KhGSA), 12X2MCP (12Kh2MPSR) and other steel grades. By using the new technology an amount of 90 tons of copper sulfate was annually saved and the crane operations were reduced. Pipe drawing on an oxide film is performed on conventional pipe drawing machines. The surface of pipes rolled on an oxide film was improved and the rejects decreased to 0.12% in comparison to 0.18-0.22% obtained by the previous technology. The annual savings for one pipe drawing shop amount to 230,000 rubles.

ASSOCIATION: Pervoural'skiy novotrubnyy zavod (Pervoural'skiy New Pipe Plant)

Card 2/2

FREYBERG, M.A.

We are able to solve complicated problems. Izobr.i rats.  
no.7:28 J1 '60. (MIRA 13:8)

1. Rukovoditel' soveta Obshchestvennykh konstruktorskikh  
byuro Pervoural'skogo Novotrubnogo zavoda, zamestitel'  
nachal'nika trubovolochil'nogo tsekha.  
(Pervoural'sk--Pipe mills--Technological innovations)

STASEVICH, P.K.; FREYBERG, M.A.; OSLOM, N.L.; CHEMERINSKAYA, R.I.;  
KOKHMAN, L.V.; MOSKALENKO, V.I.

Drawing unannealed carbon steel tubes without mandrels.

Stal' 21 no.8:725-727 Ag '61.

(MIRA 14:9)

1. Pervoural'skiy novotrubnyy zavod.  
(Deep drawing (Metalwork)) (Pipe, Steel)

FREYBERG, M.A.

Public Designing Offices of the Novotrubnyi plant. Metallurg  
7 no.6:37-39 Je '62. (MIRA 15:7)

1. Predsedatel' soveta obshchestvenno-konstruktorskogo  
byuro Novotrubnogo zavoda.

(Pipe mills—Technological innovations)  
(Design, Industrial)

SHURUPOV, Anatoliy Konstantinovich; FREYBERG, Mark Aronovich;  
KOLMAGOROV, V.L., retsenzent; KEL'NIK, Valentin Prokop'yevich,  
red.; CHAPAYKINA, F.K., red.izd-va; MATLYUK, R.M., tekhn. red.

[Production of economical shape tubes]Proizvodstvo trub ekono-  
michnykh profilei. Sverdlovsk, Metallurgizdat, 1963. 296 p.  
(MIRA 16:2)

(Tubes) (Pipe mills)

FREYBERG, P. E. and STEFANOVSKII, A. N.

Skorostnye metody vosstanovleniia srobotannykh detalei naplavkoi sormaitom i belym chugunom bez posleduiushchei termoobrabotki. Moskva, 1944. 14 p. diagrs. (Institut tekhniko-ekonomicheskoi informatsii. Izdaniia, 1944, No. 19.

High-speed methods of reconditioning worn parts by building up layers of "sormite" hard alloy and white pig iron without subsequent heat treatmeht.

DLC: TS227.S6923

SO: Manufacturing and Mechanical Engineering in the Soviet Union. Library of Congress, 1953.

SLAVYANSKIY, Viktor Timofeyevich; YEVSTROP'YEVA, K.S., doktor khimicheskikh nauk, professor, redaktor; FREYBERG, S.I., zasluzhennyy deyatel' nauki i tekhniki, professor, retsenzent; KHOZYAINOV, M.I., inzhener, redaktor; SUVOROVA, I.A., izdatel'skiy redaktor; ROZHIN, V.P., tekhnicheskiy redaktor.

[Gases in glass] Gazy v stekle. Pod.red.K.S. Evstrop'eva. Moskva,  
Gos.izd-vo obor.promyshl., 1957. 141 p. (MLRA 10:4)  
(Glass)



FREYBERG, S.I., zasl. deyatel' nauki i tekhniki, prof., red.; KATSMAN, A.B.,  
otv. red.; GONCHAROV, N.G., tekhn. red.

[Instrument manufacture and automatic control equipment] Priboro-  
stroenie i sredstva avtomatizatsii kontrolya. Moskva, Vses. in-t  
nauch. i tekhn. informatsii. Book.2. [Measuring instruments and  
automatic control devices] Metrologicheskie pribory i sredstva  
avtomatizatsii kontrolya. 1960. 206 p. (MIRA 14:10)  
(Automatic control) (Measuring instruments)

FREYBERG, S.I., zasl. deyatel' nauki i tekhniki, prof., red.  
[deceased]; GONCHAROV, N.G., tekhn. red.

[Automatic control devices and the manufacture of instruments]  
Priborostroenie i sredstva avtomatizatsii kontrolya. Moskva,  
Book 1. [Nondestructive methods for testing materials] Neraz-  
rushaiushchie metody ispytaniia materialov. 1961. 359 p.  
(Non-destructive testing) (MIRA 15:8)

FREYBERG-KONDRAT'YEV, G.A.

Construction of transit instruments and meridian circles.

Trudy Polt.grav.obser. 3:149-161 '50. (MIRA 8:1)

(Astronomical instruments)

L 1998-66 EWT(1)/EWP(e)/EWT(m)/EWP(w)/EWP(i)/ETC/ENG(m)/T/EWP(t)/EWP(b)/EWA(h)

IJP(c) -JD/JG/AT/WH

ACCESSION NR: AP5023295

UR/0371/65/000/004/0123/0126

AUTHOR: Feltins, I. (Feltyn', I. A.); Freiberger, L. (Freyberger, L. A.)

42  
35  
B

TITLE: The properties of Si-SiC and Ge-SiC heterojunctions

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 4, 1965, 123-126

TOPIC TAGS: silicon semiconductor, germanium semi-conductor, junction dioxide

ABSTRACT: Silicon-silicon carbide and germanium-silicon carbide heterojunctions were obtained by the thermal decomposition of organic silicon compounds. The volt ampere characteristics of the junctions obtained were studied by the dependence of the capacitance of the junction on the applied voltage. The contacts to the germanium-silicon carbide and silicon-silicon carbide heterojunctions were made by spraying gold. The volt ampere characteristics were determined by the constant current method, while the dependence of the capacitance on the applied voltage was measured by the change in the front of the rectangular current impulses. The measurements show that silicon-silicon carbide and germanium-silicon carbide

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L 1998-66

ACCESSION NR: AP5023295

21  
44  
57  
bide heterojunctions, by virtue of their electrical properties, are located between semiconductor-dielectric heterojunctions (for example, silicon-silicon dioxide) and heterojunctions between two semiconductors with a great difference in the lattice constant, but are similar in their dielectric properties to silicon and germanium. The dielectric parameters of the silicon carbide layer and structural defects on the separation boundary between silicon or germanium and silicon carbide were found to exert a substantial effect on the electrical characteristics of the junctions. Orig. art. has: 2 figures

ASSOCIATION: Institut energetiki AN Latv. SSR (Institute of Energetics AN LatSSR)

44.55  
SUBMITTED: 15Feb65

ENCL: 00

SUB CODE: SS, EM

NR REF SOV: 002

OTHER: 002

Card 2/2

ACC NR: AP7005268

SOURCE CODE: UR/0371/66/000/006/0099/0100

AUTHOR: Kalnach, Ya. V.; Feltyn', I. A.; Freyberga, L. F.

ORG: Physicoenergetics Institute, AN Latv. SSR (Fiziko-energeticheskiy institut, AN Latv. SSR)

TITLE: About the effect of  $\text{SiO}_2$  on the growth of silicon carbide on silicon

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 6, 1966, 99-100

TOPIC TAGS: silicon carbide, thin film, silicon dioxide, electron diffraction analysis

ABSTRACT: Monocrystalline layers of SiC were grown from methyldichlorosilane on silicon using either an argon or a hydrogen atmosphere at  $1100^\circ\text{C}$  and an electron diffraction study was done on the layers. Electron diffraction patterns were shown of epitaxial SiC grown under hydrogen and argon. Crystalline SiC grew under hydrogen, whereas an amorphous structure developed under argon. The external appearance of both forms of SiC was identical under microscopic examination. Electrolytic polishing of these layers did not cause growth figures. Growth conditions were changed by adding  $\text{SiO}_2$  between the silicon and the growing SiC. Whenever  $\text{SiO}_2$  was present, only amorphous SiC formed. After soaking in HF the amorphous layers were removed easily from

Card 1/2

ACC NR: AP7005268

the silicon substrate. A redness developed on the SiC layers as a result of oxidation due to the presence of  $\text{SiO}_2$ . This coloring could be removed by further treating the samples in 49% HF. The electrical properties of the SiC layers which formed in the presence of  $\text{SiO}_2$  were examined by measuring the volt-ampere characteristics of  $n$ - $n$  and  $p$ - $n$  heterotransitions. For  $n$ - $n$  heterotransitions SiC (+) was the direct voltage, while for  $p$ - $n$  heterotransitions SiC (-) was the reverse voltage. The ratio of direct to reverse voltage was always 1/6. Tunneling occurred easily in these layers, since SiC had no effect on the volt-ampere characteristics. Orig. art. has: 1 figure.

SUB CODE: 11,20/ SUBM DATE: 21Jun66/ ORIG REF: 001/ OTH REF: 003

Card 2/2

KAVKA, Jiri; FREYBERGER, Evzen; VODICKA, Frantisek; KLAUS, Edmund

Lattice-like dystrophy of the cornea, amyotrophic lateral sclerosis  
and cutis hyperelastica in 3 sisters. Cesk. ofth. 17 no.4/5:292-298  
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1. Očni oddeleni UNZ - Litomysl, neurologické oddeleni UNZ - Litomysl  
Kožní oddeleni UNZ - Litomysl, neurologická klinika PU v Olomouci.

(CORNEA diseases) (SKIN diseases)  
(AMYOTROPHIC LATERAL SCLEROSIS genetics)



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Rapid hormone reaction for diagnosis of pregnancy. Akush.gin.  
no.2:43-45 Mr-Apr '50. (GIML 19:2)

1. Of the Department of Experimental Biology of the All-Union  
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Worker in Science Prof. N.A.Shereshevskiy).

AFANAS'EV, V. N., SEMENOV, P. I. and FREIBURG, T. E.

Shliuovannye vodnye puti. [Locking waterways]. Moskva, Ministerstvo rechnogo flota SSSR, 1948. 392 p.

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AFANASOV, Vasil'y Nikolayevich; FREYBURG, Tat'yana Yevgen'yevna; IL'INSKIY,  
V.A., redaktor; VOLCHOK, K.M., ~~tekhnicheskii~~ redaktor

[Manual for a lockman] Posobie dlia sudopropusknikov. Leningrad,  
Izd-vo "Rechnoi transport" Leningradskoe otd-nie, 1955. 135 p.  
(Inland navigation) (Sluice gates) (MLRA 8:7)

AFANASOV, Vnsiliy Nikolayevich; SEMENOV, Petr Ivanovich; FREYBURG,  
Tat'yana Yevgen'yevna; KANIOVSKIY, Boris Sergeyevich; ILINSKIY,  
V.A., red.; VOLCHOK, K.M., tekhn.red.

[Locks for waterways and ports] Sliuzovannye vodnye outi i  
porty. Leningrad, Izd-vo "Rechnoi transport," Leningr.otd-nie,  
1957. 384 p. (MIRA 11:1)

(Locks (Hydraulic engineering))

KANIOVSKIY, Boris Sergeyevich, inzh.; SEMENOV, Petr Ivanovich,  
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I.I., retsenzent; BERGOV, S.A., red.

[Waterways with navigation locks] Shkuzovannye vodnye puti.  
Moskva, Izd-vo "Transport," 1964. 300 p. (MIRA 17:7)

USSR/ Mathematics - The  $L_1$  class of functions

Card 1/1 Pub. 22 - 8/53

Authors : Freyd, Geza

Title : One-side  $L_1$ -approximations and their applications to Tauberian type theorems

Periodical : Dok. AN SSSR 102/4, 689-691, Jun 1, 1955

Abstract : A class  $K_{(a,b)}$  functions  $(m-1)$  times differentiable over  $(a,b)$  and belonging to the  $L_1$  (Lebesgue integr.) is analyzed for the purpose of applying the one-side of the  $L_1$  approximations to Tauberian type theorems. Five references: 4 Hungarian and 1 USSR (1951-1954). Graphs.

Institution : The Hungarian Acad. of Sc., Institute of Applied Mathematics, Budapest

Presented by : Academician A. N. Kolmogorov, December 24, 1954

FREYD, R.L.									
1ST AND 2ND CROERS									
PROCESSES AND PROPERTIES INDEX									
3RD AND 4TH CROERS									
<p>ca</p> <p>119</p> <p>Changes of the blood gases in the Schwartzman reaction and in general anaphylaxis. R. L. Frey (Central Pediatric Res. Inst., People's Health Commission, USSR). <i>Bull. Eksp. Biol. Med.</i> 13, No. 34, 1921 (1912). - Blood was drawn by heart puncture from 42 rabbits sensitized for the local Schwartzman anaphylactic reaction and 17 controls. Reacting animals showed a sharp drop in blood CO<sub>2</sub>, a tendency to lower blood O<sub>2</sub>, a drop in alk. reserve, an increase in lactic acid of the blood, and no significant change in catalase or hemoglobin. In general anaphylaxis with 15 rabbits sensitized with ovalbumin and 4 controls there was a sharp drop in blood O<sub>2</sub>, little change in CO<sub>2</sub>, a tendency to reduced catalase, and no significant variation in hemoglobin. K. Starr Chester</p>									
<p>ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>									
<p>FROM STIMULUS</p>									
<p>FROM BOWLING</p>									

FREYD, R. L.

USSR/Medicine - Pneumonia, Therapy

Medicine - Sulfanilamide, and Sulfanilamide Derivatives

Jul/Aug 48

"Utilization of Sulfamide-100 for Treating Pneumonia in Children and a Comparative Analysis of Its Action," R. L. Gambuzg, E. M. Kravets, L. B. Balayan, and R. L. Freyd, Inst of Pediatrics, Acad Med Sci USSR, 3 pp

Describes treatment of 80 children with sulfamide-100. Discusses its effectiveness.

PA 13/49T70



GALINKIN, A.A.; FREYBERG, F.A.

Epidemiology of erysipeloid. Vest.von.1 derm. no.5:49 8-0 '53.  
(MLRA 6:12)

1. Iz kliniki koshnykh i venericheskikh bolezney Voronezhskogo  
meditsinskogo instituta.

(Erysipelas)

*Freyberg, S.*

KREIMERMAN, G., kandidat tekhnicheskikh nauk; FREYBERG, S., inzhener.

Allowable speed of working parts of grain handling machinery.

Muk.-el sv.prom. 20 no.10:9-10 0 '54.

(MLRA 7:12)

(Grain handling machinery)

KONOVALOV, L.V., inzh.; SPITSYNA, I.O., kand.tekhn.nauk; FREYDBERG, S.I.,  
inzh.

Life of crane parts. Sbor. VNIPTMASH no.25:3-16 '59  
(MIRA 13:11)  
(Cranes, derricks, etc.)

FREYBERG, V.																									
PROCESSING AND PROPERTIES																									
<p>Aluminum castings in permanent metal molds. II. V. FREYBERG. <i>Vestnik Metalloprov.</i> 9, No. 11, 110-32(1929); <i>J. Inst. Metals</i> 44, 703-4; <i>cf. TMS</i> 9, No. 3, 38-63(1929).—The principles on which metallic molds for castings must be constructed are laid down. The shapes of the different sections of the molds and their methods of joining are discussed in detail. For gravity casting special modifications are required for Al in view of its low <math>\alpha</math>. To avoid the formation of cavities due to contraction on cooling, the lowest practicable pouring temp. must be used and the molds designed to facilitate gradual cooling. Moistening of various parts of the mold is also recommended during cooling to avoid local overheating and strains resulting. A series of mold designs for various purposes is discussed, and a cast Fe of the compn. graphite 2.0, brand C 0.4, Si 1.5, P 0.05, S 0.05 and Mn 0.9% is suggested. For casting under pressure, the most important factors are the accuracy of manuf. of the different component parts of the molds, and the provision of adequate ventilation holes to avoid bubble formation. The best material is a Cr-V steel, of compn.: Cr 2.1, V 0.35, C 0.4, Mn 0.05, Si 0.1%. Such a steel may give 5000-8000 castings, but for larger quantities W steels of the type C 0.07-0.88, Si 0-0.2, Mn 0-0.5, W 8-18, Cr 2.5-0.5, Mg 0-2.5, V 0-1.50, Mo 0-0.5% is recommended. It is concluded that casting has not yet been perfected, and considerable progress both in the construction of molds and in the compn. of the alloys used for them is desirable.</p>																									
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																									
<p>SEARCHED INDEXED SERIALIZED FILED</p>																									

FREYDBERG, V. Z.

Cand Tech Sci

Dissertation: "Investigation of Influence of the Microgeometry of Fitting Surfaces on the Strenght of Fit in Rolling Friction Bearings."

13 June 49

Moscow Order of the Labor Red Banner Higher Technical School  
imeni Baumen

SO Vecheryaya Moskva  
Sum 71

BEYZELMAN, R.D.; SPITSYN, N.A., kandidat tekhnicheskikh nauk; retsenzent;  
FREYDBERG, V.Z., redaktor; POPOVA, S.M., tekhnicheskiy redaktor.

[Repair of bearings] Remont podshipnikov. Izd. 2-e (ispravlennoe).  
Moskva, Gos. nauchno-tekhn. izd-vo. Mashinostroit. lit-ry, 1949.

135 p.

(MLRA 8:2)

(Bearings (Machinery))

FREYDBERG V.Z.

LUR'YE, Gerta Borisovich; FREYDBERG, V.Z., kand. tekhn.nauk, nauchnyy red.;  
ZAV'YALOV, B.G., red.; SAMUYLOVA, A.G., tekhn.red.

[Advanced grinding technology] Progressivnaia tekhnologii shlifova-  
niia. Moskva, Vses. uchebno-pedagog. izd-vo Trudrezervizdat, 1957.  
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(Grinding and polishing)

SHAL'NOV, Valeriy Alekseyevich; KORSAKOV, V.S., prof., doktor tekhn.nauk,  
retsensent; FREYDBERG, V.Z., kand.tekhn.nauk, red.; PETROVA, I.A.,  
izd.red.; ROZHIN, V.P., tekhn.red.

[Grinding and polishing blades of gas-turbine engines] Shlifo-  
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(Gas turbines--Blades) (Grinding and polishing)



BARMASH, Vadim Nikolayevich; LEVIN, David Isakovich; FREYDBERG, Vladimir Zinov'yevich; NOVIKOV, M.P., kand.tekhn.nauk, retsenzent; KORSAKOV, V.S., prof., doktor tekhn.nauk, red.; SOKOLOVA, G.F., tekhn.red.; EL'KIND, V.D., tekhn.red.

[Portable tools for assembling and finishing operations] Ruchnye mashiny dlia montazhnykh i otdelochnykh rabot. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 264 p.

(MIRA 13:4)

(Building--Tools and implements)

GENIS, Boris Mikhaylovich; DOKTOR, Lema Shimanovich; TERGAN,  
Vladimir Semenovich; FREYDBERG, V.Z., nauchnyy red.;  
CHI-YUN-SHUY, S.N. [Ch'ih Yung-shui, S.], red.;  
DORODNOVA, L.A., tekhn. red.

[Operator of circular grinding machines] Shlifovshchik na  
krugloshlifoval'nykh stankakh. Moskva, Proftekhizdat, 1963.  
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(Grinding and polishing)

FREYBERG, Ye.; TIKHOMIROV, B.A., prof.; GARUKOVSKIY, Kr.

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